

Page 19, delete the paragraph beginning on line 24, and substitute:

Q27 13, Fig. 10 showing only the drawworks and cable 13 of the drilling machine 40.

Delete pages 20 and 21 in their entirety.

IN THE CLAIMS:

Sub B4 Please cancel claims 1-30, and add the following new claims;

31. A drilling machine for exploratory and productive wells, comprising:

- a base;
- a top drive;
- a guide for guiding a movement of the top drive codirectionally with a longitudinal axis of said base;
- a gripper for at least one of gripping and guiding a drilling pipe, said gripper being moveable perpendicular to the base axis; and
- a live ring connected to the base at a foot of said base.

32. A drilling machine according to claim 31, wherein said base is movably positionable.

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33. A ~~drilling machine~~ according to claim according to claim 31, further comprising:

a through guide on said live ring;
a cable;
a crown block on the base; and
a drawworks, said top drive being connected to said drawworks by said cable, in connection between said top drive and said drawworks said cable passing over the crown block and through said through guide.

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34. A drilling machine according to claim 31, comprising means for pivoting said base carried on said live ring.

35. A drilling machine according to claim 34, wherein said means for pivoting said base includes a connecting member, a pivot bearing on said connecting member, and a lifting apparatus extending between said pivot bearing and said base, said pivot bearing having a bolt passing through said connecting member.

36. A drilling machine according to claim 1 further comprising:
a winch carried at a lower region of said base;
a receiving frame carried on said base;
a return roller on the base; and

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a winch cable secured to the receiving frame, between said winch and
said receiving frame, the winch cable passing over the return roller.

37. A drilling machine according to 36, further comprising a drive unit for driving said winch.

38. A drilling machine according to claim 37, wherein said drive unit including an electric motor and a downstream transmission.

39. A drilling machine according to claim 31, further comprising:
a rig floor, said live ring being affixed to said rig floor;
a drawworks arranged below said rig floor, said drawworks including a cable guiding trolley; and
an iron roughneck arranged one of on said rig floor and in a lower region of said base above said rig floor, said iron roughneck being one of slidably moveably mounted and pivotably moveably mounted.

40. A drilling machine according to claim 39, further comprising at least one subframe box supporting said rig floor, said drawworks being arranged in said subframe box.

41. A drilling machine according to claim 31, further comprising:
a rig floor, said live ring being affixed to said rig floor; and

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and said base.

a pipe handling device arranged proximal at least one of said rig floor

42. A drilling machine according to claim 41, wherein said pipe handling device is arranged below said rig floor.

43. A drilling machine according to claim 42, wherein said pipe handling device comprises:

a truck moveable on rails;

a pipe receiving unit arranged on said truck; and

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a pivot device, said pipe receiving unit being mounted to said pivot device so as to be at least one of rotatable and pivotable in a vertical plane.

44. A drilling machine according to claim 43, wherein said pipe receiving unit comprises at least one of a pipe gripper and a retaining unit.

45. A drilling machine according to claim 31, further comprising a steel structure, and a locking apparatus arranged on an upper end of said base and connectable to said steel structure.

46. A drilling machine according to claim 31, wherein said top drive is rotatable about an axis parallel to said base longitudinal axis.

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47. A drilling machine according to claim 31, further comprising a hollow cylindrical drum carried on said base for storage of at least one of a flushing hose and power and control cables.

48. A drilling rig comprising at least two drilling machines, each drilling machine including:

a base;

a top drive;

a guide for guiding a movement of the top drive codirectionally with a longitudinal axis of said base;

a gripper for at least one of gripping and guiding a drilling pipe, said gripper being moveable perpendicular to the base axis; and

a live ring connected to the base at a foot of said base, each machine being moveable at least one of rotatably and pivotably for selective positioning of said machines over a center of a well.

49. A drilling rig according to claim 48, wherein said drilling machines have rig mounting positions symmetrical of the center of the well.

50. A drilling rig according to claim 48, wherein the bases of said machines are connected to one another by at least one of a kinematic chain, a cable and a chain.

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51. A drilling rig according to claim 48, further comprising a steel structure

arranged between said drilling machines, said drilling machines being reciprocally lockable to said steel structure and said drilling machines being connected to one another by at least one of a cable and a chain, the steel structure carrying a return roller, said at least one of a cable and a chain passing over said roller.

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52. A drilling rig according to claim 51, further comprising a damping device

arranged on at least one of the steel structure and said drilling machines, the damping device including at least one of a spring and a hydraulic cylinder with a choke.

53. A method for sinking a well and installing pipework with a drilling machine, said drilling machine having a base, a top drive guided for movement codirectionally with a base longitudinal axis, a gripper for gripping pipe, the gripper being moveable perpendicular to the base axis, a pipe handling device arranged between the top drive and a lower region of the base, and a lifting apparatus, said method comprising:

- a) orienting the base to a horizontal pipe receiving position and the top drive at a top drive upper position and with the gripper at a height substantially the same as a selected pipe in a pipe stock;
- b) rolling the selected pipe to position it at at least one of on and over the base;

c) gripping and holding the selected pipe with the gripper;

d) utilizing the top drive and handling device to effect a connection of an upper end of said selected pipe to said top drive;

e) raising the base to a vertical position with the lifting apparatus; and

f) connecting a lower end of the selected pipe to a pipe located in the well.

54. The method according to claim 53, further comprising locking said base to a steel structure after vertically positioning said base.

55. The method according to claim 53, wherein steps a) through f) are practiced in reverse order to remove a pipe from the well and place it at a pipe stock location, steps f) and d) being practiced to break a pipe connection, and step e) to lower the base to a horizontal orientation.

56. The method according to claim 55, wherein, the base is unlocked from said steel structure at least before the practice of step e).

57. A method for sinking a well and installing pipework with a drilling machine having a base, a top drive, a gripper for at least one of gripping and guiding a pipe, a handling device, and an elevator, said method comprising:

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TOP DRIVEN DRILLING

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- a) providing that said base is stationary;
- b) selecting a pipe from a pipe stock rack with said handling device, said handling device being rail-borne so that said handling device can be moved to said base;
- c) positioning an upper region of the selected pipe proximal at least one of said top drive and said elevator;
- d) encompassing an upper region of said selected pipe with said elevator and a selected pipe lower region with said gripper;
- e) screwing a drive shaft of said top drive to an upper end of the selected pipe; and
- f) lowering the selected pipe to locate a lower end thereof at a machine iron roughneck and then connecting said lower end to a pipe located in said well.

58. A method for sinking a well and installing pipe work with a drilling machine, said drilling machine having a base, a top drive on the base, a handling device on the base, a gripper in the base for gripping a pipe, an elevator, and a rail-borne pipe handling unit, said method comprising:

- a) providing that at least a part of the base is rotatable about a vertical axis, said top drive being located in at least one of an upper and a middle region of said base;
- b) rotating said at least a part of the base to a base position proximal a pipe collection point at which a pipe selected from a pipe stock and conveyed to said collection point with said handling unit is held;

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c) lowering the top drive and handling device connected thereto, and the elevator on the base sufficiently to enable said elevator to encompass said selected pipe;

d) extending the gripper from the base sufficiently for the gripper to encompass said selected pipe;

e) lifting the pipe on the base and rotating the base to position the pipe over the well; and

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f) connecting a lower end of the selected pipe to a pipe located in the well, and connecting an upper end of the selected pipe to a drive shaft of said top drive.

59. The method according to claim 53, wherein connection of the upper end of said selected pipe is with a drive shaft of said top drive and is effected with at least one of a screwing and securing device, and the pipe handling device.

60. The method according to claim 58, wherein connection of the upper end of said selected pipe and said drive shaft of the top drive is effected with at least one of a screwing and securing device, and the pipe handling device.

61. The method according to claim 58, wherein the at least a part of the base which is rotatable is the top drive, said top drive being rotated about a vertical axis parallel to a longitudinal axis of said base to position it proximal said collection point.

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62. The method according to claim 59, wherein connection of the lower end of the selected pipe with a pipe in the well is effected first, and then connection of the upper end of said selected pipe made with the drive shaft of said top drive.

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63. The method according to claim 58, wherein during pipe handling steps involved in installation and removal operations, the selected pipe is suspended only in the elevator, connection of said selected pipe with the drive shaft of the top drive being omitted.

After the claims, insert the accompanying separate Abstract page.

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